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(54) **METHOD AND APPARATUS FOR DATA TRANSMISSION IN A MOBILE TELECOMMUNICATION SYSTEM SUPPORTING ENHANCED UPLINK SERVICE**

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See application file for complete search history.

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(57) **ABSTRACT**

A method and an apparatus for data transmission in a mobile telecommunication system supporting an enhanced uplink service are provided. A Transport Format Combination (TFC) selector determines TF information for data to be transmitted through a first data channel not supporting Hybrid Automatic Repeat reQuest (HARQ) and a second data channel supporting HARQ, and determines gain factors for the first and second data channel, and first and second control channel carrying control information for the first and second data channel. The gain factors are input to a physical channel transmission controller, and the physical channel transmission controller scales-down the gain factor for the second channel if total transmit power required for transmission of the channels exceeds the predetermined maximum allowed power. A gain scaler adjusts transmit powers of the channels using the scaled gain factor and gain factors for the first data channel, the first control channel and the second control channel.

**28 Claims, 14 Drawing Sheets**

